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Minnesota Nursery and Landscape Association (MNL) Foundation

BOTANY, PLANT PHYSIOLOGY AND PLANT GROWTH

LESSON 6 - PLANT PARTS AND FUNCTIONS

FLOWERS AND FRUIT

PART 4



FOUNDATION

Plant Parts and Functions

Review of Roots

Segment One – Flowers

Segment Two – Fruits

Review– Roots

Functions of Roots

- to absorb nutrients and water
- to anchor the plant in the soil
- to serve as food storage organs

Roots Review



taproot



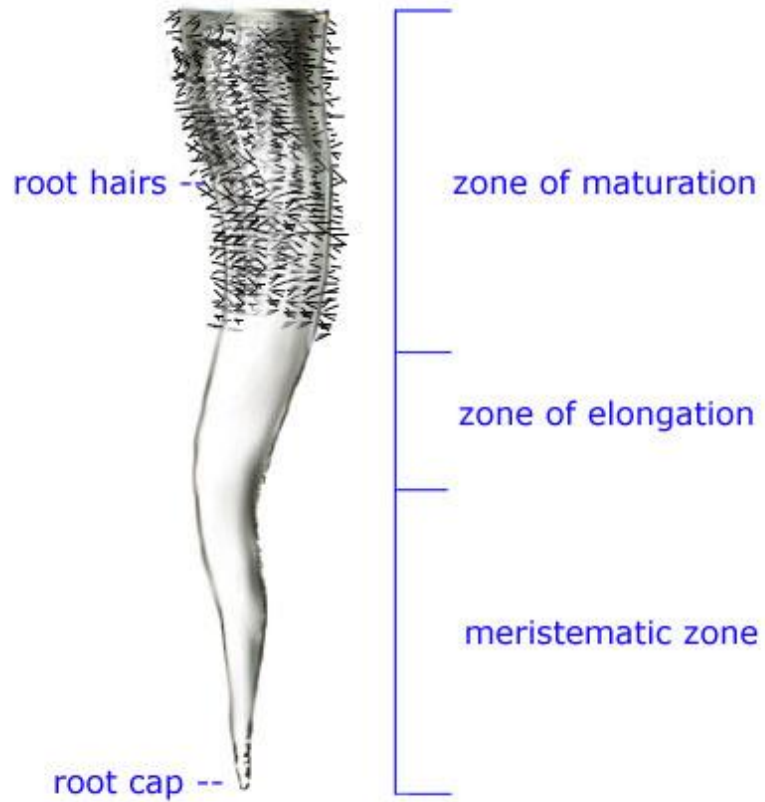
fibrous root

Roots Review

Tree roots extend beyond drip line.

Most roots occur in top 12" of soil.

Parts of a Root



Roots as Food Crops

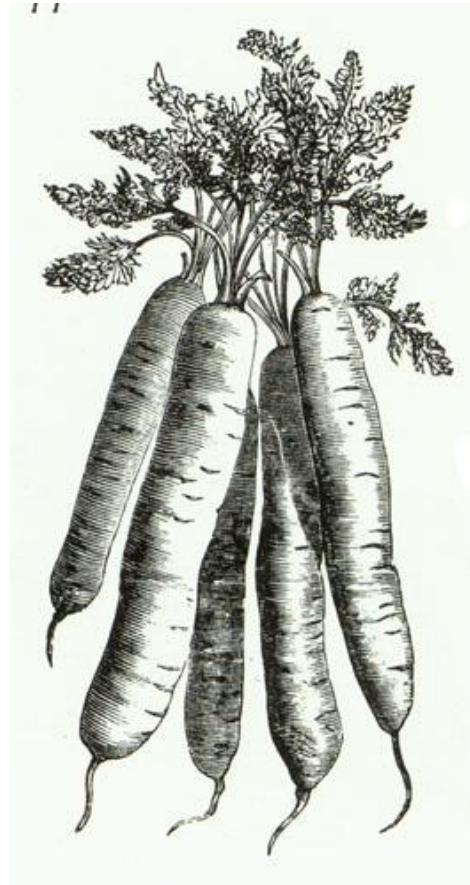
Sweet potato

Carrot

Parsnip

Salsify

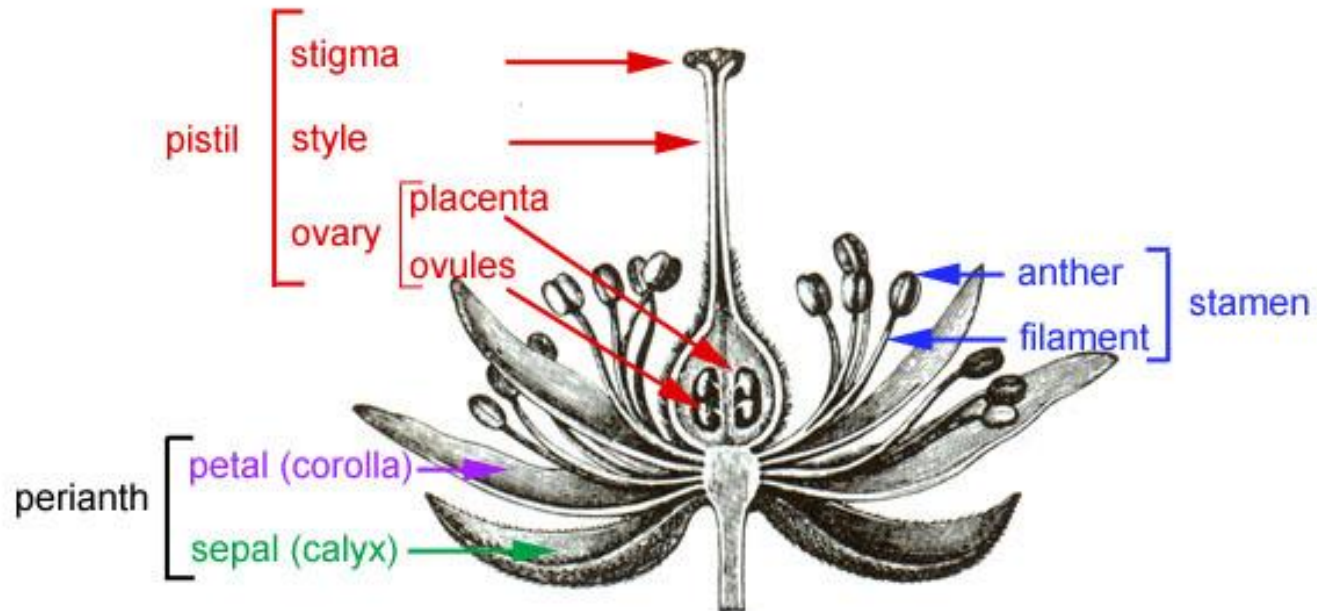
Radish



Segment One – Flowers



Parts of a Flower



Dioecious and Monoecious Plants

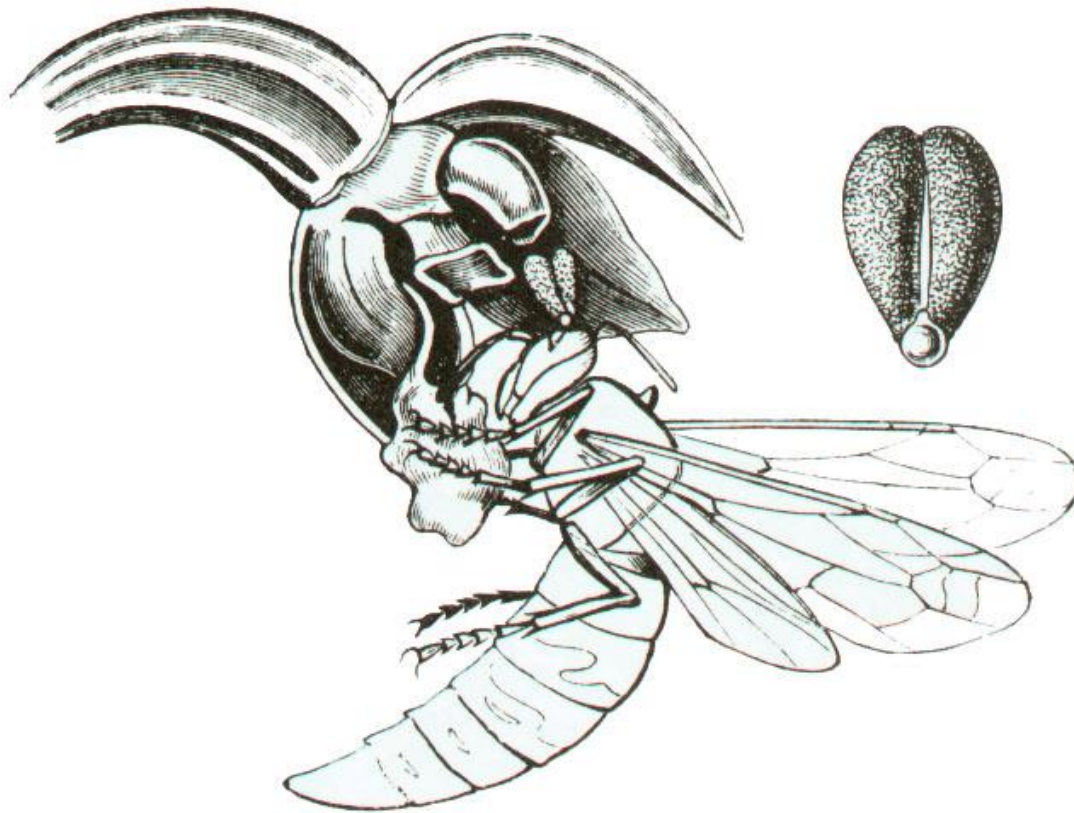
Dioecious Plants

- Staminate plants bear only male flowers
- Pistillate plants bear only female flowers

Monoecious Plants

- Flowers that contain both male and female parts

How Seeds Form



Types of Flowers

Solitary flower – one flower per stem

Inflorescence – cluster of flowers

Segment Two – Fruits



Parts of a Fruit

Seeds

mature ovule

represent both parents

Ovary wall

fleshy or dry

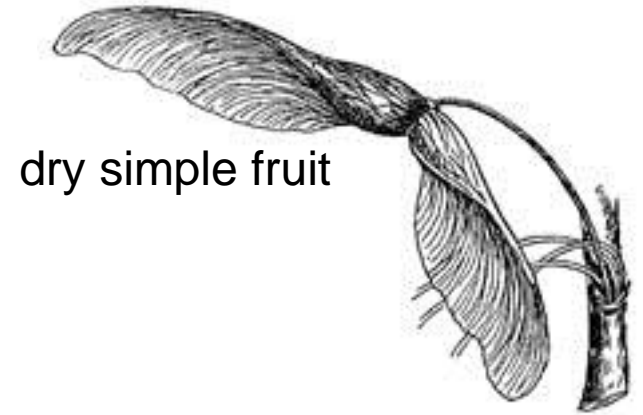
represents maternal plant



pome



drupe



dry simple fruit



aggregate



cone



multiple

Parts of a Seed

- Embryo
- Endosperm
- Seed coat

Review

Plant Parts and Functions, Parts Three & Four

- Segment One - Roots
- Segment Two – Flowers
- Segment Three – Fruit

Review – Functions of Roots

- to absorb nutrients and water
- to anchor the plant in the soil
- to serve as food storage organs

Review – Parts of a Flower

Pistil (female)

- ovary
- style
- stigma

Stamen (male)

- filament
- anther

Review – Definition of Fruit

Fruits consist of:

- fertilized and mature ovules (seeds)
- ovary wall
 - fleshy as in the apple or
 - dry and hard as in maple fruit (samara).



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